

General

Title

Pneumocystis carinii pneumonia (PCP) prophylaxis: percentage of eligible infants with HIV-exposure who were prescribed PCP prophylaxis in the measurement year.

Source(s)

Health Resources and Services Administration (HRSA). HAB HIV performance measures: pediatrics. Rockville (MD): Health Resources and Services Administration (HRSA); 2010 Aug 19. 30 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of eligible infants with human immunodeficiency virus (HIV)-exposure who were prescribed *Pneumocystis carinii* pneumonia (PCP) prophylaxis in the measurement year.

Rationale

Human immunodeficiency virus (HIV)-related morbidity and mortality has dropped dramatically due to advances in HIV/acquired immune deficiency syndrome (AIDS) treatment. But reductions are uneven across HIV-infected populations due to unequal access to care and variable quality of services provided. Quality management seeks to enhance the quality of HIV care provided and increase access to services. They do so by measuring how health and social services meet established professional standards and user expectations.

"*Pneumocystis carinii* pneumonia (PCP) remains a common AIDS-indicator disease among HIV-infected

infants and children. The highest incidence of PCP in HIV-infected children is in the first year of life, with cases peaking at age 3 to 6 months. The single most important factor in susceptibility of HIV-infected children of all ages to PCP is the status of cell mediated immunity of the host" (Mofenson et al., 2009).

The measure reflects important aspect of care that significantly impacts survival and mortality. Data collection is currently feasible and measure has a strong evidence base supporting the use.

U.S. Public Health Guidelines

"Chemoprophylaxis is highly effective in preventing PCP. Criteria for its use are based on the patient's age and CD4 count or percentage. Prophylaxis is recommended for all HIV-infected children aged greater than 6 years who have CD4 counts less than 200 cells/mm³ or CD4 less than 15%, for children aged 1 to 5 years with CD4 counts of less than 500 cells/mm³ or CD4 less than 15%, and for all HIV-infected infants aged less than 12 months regardless of CD4 count or percentage. Infants born to HIV-infected mothers should be considered for prophylaxis beginning at 4 to 6 weeks of age. HIV-infected infants should be administered prophylaxis until 1 year of age, at which time they should be reassessed on the basis of the age-specific CD4 count or percentage thresholds mentioned above. Infants with indeterminate HIV infection status should receive prophylaxis until they are determined to be HIV-uninfected or presumptively uninfected with HIV. Prophylaxis is not recommended for infants who meet criteria for definitively or presumptively HIV-uninfected" (Mofenson et al., 2009).

Evidence for Rationale

Health Resources and Services Administration (HRSA). Deliver HIV/AIDS care: quality of care. [internet]. Rockville (MD): Health Resources and Services Administration (HRSA); [accessed 2016 Jun 23].

Health Resources and Services Administration (HRSA). HAB HIV performance measures: pediatrics. Rockville (MD): Health Resources and Services Administration (HRSA); 2010 Aug 19. 30 p.

Mofenson LM, Brady MT, Danner SP, Dominguez KL, Hazra R, Handelsman E, Havens P, Nesheim S, Read JS, Serchuck L, Van Dyke R, Centers for Disease Control and Prevention, National Institutes of Health, HIV Medicine Association of the Infectious Diseases Society of America, Pediatric Infectious Diseases Society, American Academy of Pediatrics. Guidelines for the prevention and treatment of opportunistic infections among HIV-exposed and HIV-infected children: recommendations from CDC, the National Institutes of Health, the HIV Medicine Association [trunc]. MMWR Recomm Rep. 2009 Sep 4;58(RR-11):1-166.

Primary Health Components

Human immunodeficiency virus (HIV); *Pneumocystis carinii* pneumonia (PCP) prophylaxis; infants

Denominator Description

Number of human immunodeficiency virus (HIV)-exposed infants:

- In whom HIV infection has not been presumptively excluded by 6 weeks of age; and
- Had a medical visit with a provider with prescribing privileges at least once in the measurement year

See the related "Denominator Inclusions/Exclusions" field.

Numerator Description

Number of human immunodeficiency virus (HIV)-exposed infants who were prescribed *Pneumocystis carinii*

pneumonia (PCP) prophylaxis during the measurement year

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

Unspecified

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Age less than or equal to 12 months

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Health and Well-being of Communities

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

The measurement year

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

Number of human immunodeficiency virus (HIV)-exposed infants:

In whom HIV infection has not been presumptively excluded* by 6 weeks of age; and
Had a medical visit with a provider with prescribing privileges at least once in the measurement year

Note:

A "provider with prescribing privileges" is a health care professional who is certified in his/her jurisdiction to prescribe medications.
Refer to the original measure documentation for additional data elements.

*In nonbreast-feeding infants with no positive HIV virologic test results, presumptive exclusion of HIV infection can be based on two negative virologic test results: one obtained at greater than 2 weeks and one obtained at greater than 4 weeks of age...Definitive exclusion of HIV infection is based on two negative virologic test results: one obtained at greater than 1 month of age and one obtained at greater than 4 months of age...For both presumptive and definitive exclusion of infection, the child should have no other laboratory (e.g., no positive virologic test results) or clinical (e.g., no AIDS-defining conditions) evidence of HIV infection.

Exclusions

Patients who are diagnosed with HIV infection

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of human immunodeficiency virus (HIV)-exposed infants who were prescribed *Pneumocystis carinii* pneumonia (PCP) prophylaxis during the measurement year

Exclusions

Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Electronic health/medical record

Paper medical record

Registry data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

PCP prophylaxis for HIV-exposed infants.

Measure Collection Name

HIV/AIDS Bureau (HAB) Performance Measures

Measure Set Name

Pediatrics

Submitter

Developer

Health Resources and Services Administration - Federal Government Agency [U.S.]

Funding Source(s)

Unspecified

Composition of the Group that Developed the Measure

Unspecified

Financial Disclosures/Other Potential Conflicts of Interest

Unspecified

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2010 Aug

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

Measure Availability

Source available from the [Health Resources and Services Administration \(HRSA\) Web site](#)

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For more information, contact the HRSA HIV/AIDS Bureau (HAB) at 5600 Fishers Lane, Rockville, MD 20857; E-mail: HIVmeasures@hrsa.gov; Web site: www.hrsa.gov/index.html .

NQMC Status

This NQMC summary was completed by ECRI Institute on July 8, 2016.

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Production

Source(s)

Health Resources and Services Administration (HRSA). HAB HIV performance measures: pediatrics. Rockville (MD): Health Resources and Services Administration (HRSA); 2010 Aug 19. 30 p.

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